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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,232	08/30/2001	James M. Cisar	72255/05858	9345
23380	7590	06/02/2006	EXAMINER	
TUCKER, ELLIS & WEST LLP 1150 HUNTINGTON BUILDING 925 EUCLID AVENUE CLEVELAND, OH 44115-1414			PARK, JUNG H	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/943,232	<b>Applicant(s)</b> CISAR ET AL.	
	<b>Examiner</b> Jung Park	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,7 and 19-30 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☒ Claim(s) 1,2,6,7 and 30 is/are allowed.  
 6) ☒ Claim(s) 19-23 and 26-29 is/are rejected.  
 7) ☒ Claim(s) 24, and 25 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 28-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In claim 28, "the selected frequency" lacks antecedent basis.
- In claim 29, "the unselected frequency" lacks antecedent basis.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 19-23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dartois (US 6,181,955, "Dartois") in view of Cerwall et al. (US 6,032,047, "Cerwall").

Regarding claim 19, Dartois discloses (*in col.1, ln.25-33 and ln.50-54*) that each base station (*claim - an access point*) has one or more antenna arrays (*claim - a first antenna; the antenna array*) for transmitting/receiving traffic signals over frequency carriers (*claim - unselected frequencies*) to/from mobile stations (*claim - a client*) (*claim - it is inherent to have a first transceiver circuitry for communicating with a client associated with the access point; the first transceiver circuitry coupled to the first*

*antenna array using the unselected frequencies*). Also Dartois discloses that each base station has an omnidirectional antenna (*claim - a second antenna*) for transmitting the Broadcast Control Channel (BCCH) (*claim - the selected frequency*) signal (*claim - it is inherent to have a second transceiver circuitry coupled to the omnidirectional antenna for BCCH signal*). The first and second transceiver circuitries are always turning ON state in order to transmit/receive traffic and control signals (*claim - the first transceiver circuitry operates concurrently with the second transceiver circuitry*).

Dartois does not explicitly teach if the second transceiver circuitry is for detecting a new client not associated with the access point. However, Cerwall discloses (*in col.5, ln.9-11*) that new call setups and handovers will be initiated over the new BCCH carrier frequency (*claim - for detecting a new client not associated with the access point*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to utilize the BCCH control channel taught by Cerwall in the wireless access system disclosed by Dartois so that the transceiver circuitry of omnidirectional antenna is used for detecting a new client over BCCH.

Regarding claims 20 and 26, they are claims corresponding to the first antenna in claim 19 and are therefore rejected for the similar reasons set forth in the rejection of claim 19.

Regarding claim 21, it is a claim corresponding to the second antenna in claim 19 and is therefore rejected for the similar reasons set forth in the rejection of claim 19

Regarding claim 22, Dartois does not explicitly teach, "the first antenna is an omni-directional antenna and the second antenna is an omni-directional antenna." However, Dartois teaches that the array antenna is used for covering all of the sectors (120 degree in total) as shown in Figure 9 and col.15, ln.52-56.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to extend the three set of coefficients to the six set so that the six beams cover all of the sectors in order for the omni-directional antenna to cover 360 degree in total.

Regarding claim 23, it is a claim corresponding to the detecting function in claim 19 and is therefore rejected for the similar reasons set forth in the rejection of claim 19.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dartois in view of Cerwall and further in view of Teo et al. (U.S. 2002/0086708, cited in the second PTO-892, hereinafter "Teo").

Regarding claim 27, Dartois-Cerwall lack what Teo discloses, "the plurality of carries comprises OFDM frequencies (para.[0030] where ...OFDM radio system utilizing at least one directional beam for the data traffic channels)."

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use OFDM taught by Teo in the wireless system disclosed by Dartois-Cerwall. The motivation would be to utilize a modulation technique first promoted in the early 1990s for wireless LANs. OFDM's spread spectrum technique distributes the data over a large number of carriers that are spaced apart at precise

frequencies. This spacing provides the "orthogonality" that prevents the demodulators from seeing frequencies other than their own.

***Allowable Subject Matter***

6. Claims 1,2, 6, 7, and 30 are allowed.
7. Claims 24 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. Claims 28 and 29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**Contact Information**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP  
Jung Park  
Patent Examiner  
May 24, 2006



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